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Adm - 13.6  
1414-73

13 APR 1972

MEMORANDUM FOR: Deputy Director for Science and Technology  
SUBJECT: BACKFIRE Studies

25X1 1. As you requested, I am sending forward DSD's views (attached) on the FTD BACKFIRE studies and General Keegan's memorandum. In addition, let me say that we are in general agreement with FTD's assessments which, by the way, are close to our own [redacted] with respect to empty weight. We have not heard much lately about the positions OSR and ONE are taking. At the last reading they were still clinging to a higher empty weight (123-150,000 lbs vs. 95-121,000 lbs at the extremes in the technical intelligence community) and a lower fuel load (as low as 106,000 lbs in their view vs. 148,000 lbs at the lower limit in ours). By comparison the disagreements within the technical intelligence are minor. The higher dry weight leads OSR/ONE to estimate a radius of about 2,800 N.M. for a dry weight of 123,000 lbs and 2,500 N.M. for a dry weight of 150,000 lbs. Coupling both higher dry weight and lower fuel load, OSR/ONE conclude that the radius could be as low as 2,000 N.M.

25X1 2. On 3 May the SIC reviewed the BACKFIRE analysis that had been submitted by its Aircraft Working Group for use in NIE 11-14-73. The resulting submission to the NIE drafters carries the following estimates for ranges of the BACKFIRE MOD A (the version with slightly increased wing span and no landing gear wing pods that is expected to be deployed):



USAF review(s) completed.

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The SIC believes that the above fuel loads are not apt to be off more than 10 per cent which in the worst case would cause less than 10 per cent loss in range. To reduce the ranges to the order of 2,000 N.M. as in the worst case in NIE 11-8-72, one has to assume an airplane of such poor design and engineering as to be conspicuously inconsistent with demonstrated Soviet competence in recent military aircraft.

3. The SIC decided that in its submission it would simply state its conclusions on performance characteristics, noting little or no disagreement within the technical intelligence community. Others could then decide if these come up to the requirements for "intercontinental" use. Remarks by [redacted] suggest that he may be willing to accept this approach and forego the kind of argumentative presentation that was used in NIE 11-8-72.

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4. As to General Keegan's memorandum, it is in a sense a distillation of the lengthy footnotes he put in NIE 11-8-72. I think he is right in one respect; namely, [redacted]

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[redacted] one ought to pay full attention to engineering analyses based on a good deal of experience with Soviet aeronautical practice. NIE 11-8-72 went too far in trying to discredit the Air Force analysis on the basis of very sketchy evidence.

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[redacted]  
DONALD F. CHAMBERLAIN  
Director of Scientific Intelligence

Attachments: (2)

As stated

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